ABSTRACT

A display system includes a dome light with a data receiver, a user control station with a data transmitter, a power supply furnishing low-voltage AC power to the control station, and a two-wire interconnecting cable between the transmitter and receiver can provide an essentially unlimited number of distinct lamp control functions rather than being limited to the number possible in a switch-per-lamp system. Using a digital message, the receiver can identify separate commands for a large number of indicators in the dome light assembly. By using the same two-wire interconnecting cable both for power and for data transmission, interconnection complexity can be minimized without limiting flexibility. For example, it is possible with this system to replace a dome light assembly with a different one that features additional lamps without needing to rewire the installation. The system can be implemented using shielded twisted pair cable, minimizing EMI and thereby enhancing safety in a medical or research environment.